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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/066,281

02/01/2002

Max Friedheim

1776-11

2057

7590

02/12/2004

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EXAMINER

PAIK, SANG YEOP

ART UNIT

PAPER NUMBER

3742

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/066,281

Applicant(s)

FRIEDHEIM, MAX

Examiner

Sang Y Paik

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3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-27 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-8, 11, 12, 26 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Hutchinson (US 6,393,212).

Hutchinson discloses a vapor generator having a vaporization chamber, the input port, the control means for controlling the volume of the liquid and the output port having means such as the valve to control the pressure and volume of the output steam.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8 and 11-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedheim (US 5,471,556) or Friedheim (US 4,414,037) in view of Hutchinson (US 6,393,212).

Friedheim '556 or Friedheim '037 shows the vapor generator claimed including a vaporization chamber, the chamber having an interior surface with grooves or perforations,

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respectively. The grooves have the depth in the range of 0.030-0.050 inch. However, neither Frieheim '556 nor Friedheim '037 shows the adjustable control means to control the input liquid and the output control means.

Hutchinson discloses a vapor generator having a vaporization chamber, the input port, the adjustable control means for controlling the volume of the input liquid and the output port having means such as the valve to control the pressure and volume of the output steam.

In view of Hutchinson, it would have been obvious to one of ordinary skill in the art to adapt Friedheim '556 or Friedheim '037 with the means to adjustably control the liquid input to control the output volume of the heated steam.

5. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedheim '556 or Friedheim '037 in view of Hutchinson as applied to claims 1-8 and 11-27 above, and further in view of Berthoud (US 3,863,841).

Friedheim '556 or Friedheim '037 in view of Hutchinson discloses the vapor generator claimed except the output control means that can is adjustable to direct the vapor in a plurality of selected positions and the plurality of valves that are adjustable to direct the vapor in substantially perpendicular directions.

Berthoud shows a nozzle output control means that is adjustable to direct the output in a plurality of selected positions with a plurality of valves. In view of Berthoud, it would have been obvious to one of ordinary skill in the art to adapt Friedheim '556 or Friedheim '037, as modified by Hutchinson, with the output control means that is adjustable to direct the output steams in a plurality of selected positions so that the output steams may conveniently be directed in the desired directions of the user.

***Response to Arguments***

6. Applicant's arguments filed 12/8/03 have been fully considered but they are not persuasive.

The applicant argues that the applied prior art Hutchinson show the claimed "adjustable control means for controlling input of liquid into said vaporization chamber". This control means is clearly shown by Hutchinson as shown in Figures 3, 11 and 24. The input of liquid is clearly done with the microprocessor that controls the pump that pumps the liquid into the vaporization chamber. Furthermore, the applicant argues that the claimed invention is directed to the "flash boiler" that produces superheated vapor, and further argue that Hutchinson reference is in the totally different fields. But this is not deemed persuasive since Hutchinson clearly shows the steam generating system that produces the superheated vapors as that of the applicant's.

Furthermore, it is noted to the applicant that the "flash boiler" has not been claimed in the claims. However, the prior art references Friedheim (US 5,471,556) and Friedheim (US 4,414,037) were also applied in combination with Hutchinson to show the flash boiler. Thus, the applicant's arguments are not deemed persuasive.

It is noted that Berthoud is applied to shows the plurality of valves that can direct the vapors in the claimed directions. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation is clearly illustrated that allows

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for the output fluid to directed in multiple directions as desired by the user. One of ordinary skill in the art would to look Berthoud to adapt or modify the prior art with such plurality of valves to direct its output steam to various directions as conveniently done in Berthoud.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Y Paik whose telephone number is 703-308-1147. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sang Y Paik  
Primary Examiner  
Art Unit 3742

syp